



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,808	07/31/2003	Takeshi Iwami	00862.023165	9790
5514 7590 02/19/2008 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER MCLEAN, NEIL R	
			ART UNIT 2625	PAPER NUMBER
			MAIL DATE 02/19/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/630,808	Applicant(s) IWAMI ET AL.	
	Examiner Neil R. McLean	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4-26 is/are pending in the application.
- 4a) Of the above claim(s) 5, 6, 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 7 and 10-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) ✓ | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election without traverse of Election/Restriction in the reply filed on 11/15/2007 is acknowledged.
2. Claims 5-6, and 8-9 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 11/15/2007.

Response to Arguments

3. Applicant's arguments filed 8/16/2007 have been fully considered but they moot in view of new grounds of rejection.

Regarding Applicant's argument that Ozawa et al. does not disclose or suggest that the digital camera displays information indicating that the communication between the digital camera and the printer can be disconnected.

Ozawa et al. does not disclose expressly wherein before completion of a print process by the printer that a disconnect of the cable can take place.

Fritz et al. discloses wherein before completion of a print process by the printer that a disconnect a session can take place (The entity 501(client) comprises a stopping device 520

arranged for stopping the print job, said stopping device 520 comprises a sending device 521 arranged for sending a message to the printer server, the message comprising a request to stop the printjob. The stopping device 520 will be used when all data to be printed in a printjob is sent to the printer as described in Column 6, lines 11-22), and arrange for closing the connection between the processing unit and the printer.

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

Since it is obvious to a person with ordinary skill in the art that by closing the connection means that there is no more communication between the processing unit and the printer, and if there is no connection the cable can be detached.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of notifying the client that a disconnect can occur when all of the image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the user to disconnect any cables or to move on to another task instead of waiting for the printer to finish printing. If the printer had a lot of data to print and the user had to wait until the printer is done printing, considerable time would be wasted by the user.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 4, 7, and 10-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa et al. (US 2003/0016378), in view of Fritz et al. (US 7,324,226).

Regarding Claim 1: (Currently Amended)

Ozawa et al. discloses a digital camera (e.g., Digital Camera 10 in Figure 26) which can be directly connected to a printer (e.g., Printer 12 in figure 26) via cable (e.g., serial communication cable 1201), and has a function of directly transmitting a sensed digital image to the printer (serial communications between the digital camera 10 and printer 12 are done in accordance with the USB (Universal Serial Bus) scheme as described in [0147]), comprising:

a display unit (e.g., Liquid Crystal Display Panel 34 in Figure 2) adapted to display, information indicating that the cable can be disconnected from said digital camera or the printer (the CPU 20 transmits a disconnection request of the communication connection between the digital camera 10 and printer 12 to the printer 12 (S14) to disconnect the communication connection with the printer 12 (S15) as described in Figure 5 and [0070]).

Ozawa et al. does not disclose expressly wherein before completion of a print process by the printer that a disconnect of the cable can take place.

Fritz et al. discloses wherein before completion of a print process by the printer that a disconnect a session can take place (The entity 501(client) comprises a stopping device 520 arranged for stopping the print job, said stopping device 520 comprises a sending device 521 arranged for sending a message to the printer server, the message comprising a request to stop the printjob. The stopping device 520 will be used when all data to be printed in a printjob is sent to the printer as described in Column 6, lines 11-22), and arrange for closing the connection between the processing unit and the printer.

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

Since it is obvious to a person with ordinary skill in the art that by closing the connection means that there is no more communication between the processing unit and the printer, and if there is no connection the cable can be detached.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of notifying the client that a disconnect can occur when all of the image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the user to disconnect any cables or to move on to another task instead of waiting for the printer to finish printing. If the printer had a lot of data to print and the user had to wait until the printer is done printing, considerable time would be wasted by the user.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified in claim 1.

Regarding Claim 2: (Currently Amended)

Ozawa et al. discloses a digital camera (e.g., Digital Camera 10 in Figure 26) which can be directly connected to a printer (e.g., Printer 12 in figure 26; e.g., serial communication cable 1201), and has a function of directly transmitting a sensed digital image to the printer (serial communications between the digital camera 10 and printer 12 are done in accordance with the USB (Universal Serial Bus) scheme as described in [0147]), comprising:

a display unit (e.g., Liquid Crystal Display Panel 34 in Figure 2) adapted to display, information indicating that said digital camera is ready to photograph.

Ozawa et al. does not disclose expressly wherein before completion of a print process by the printer that a disconnect of the cable can take place.

Fritz et al. discloses wherein before completion of a print process by the printer that a disconnect a session can take place (The entity 501(client) comprises a stopping device 520 arranged for stopping the print job, said stopping device 520 comprises a sending device 521 arranged for sending a message to the printer server, the message comprising a request to stop the printjob. The stopping device 520 will be used when all data to be printed in a printjob is sent to the printer as described in Column 6, lines 11-22), and arrange for closing the connection between the processing unit and the printer.

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

Since it is obvious to a person with ordinary skill in the art that by closing the connection means that there is no more communication between the processing unit and the printer, and if there is no connection the cable can be detached.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of notifying the client that a disconnect can occur when all of the image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the user to disconnect any cables or to move on to another task instead of waiting for the printer to finish printing. If the printer had a lot of data to print and the user had to wait until the printer is done printing, considerable time would be wasted by the user.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified in claim 2.

Regarding Claim 3: (Canceled)

Regarding Claim 4: (Currently Amended)

Ozawa et al. discloses a digital camera (e.g., Digital Camera 10 in Figure 26) which can be directly connected to a printer (e.g., Printer 12 in figure 26) via a cable (e.g., serial communication cable 1201), and has a function of directly transmitting a sensed digital image data to the printer (serial communications between the digital camera 10 and printer 12 are done in accordance with the USB (Universal Serial Bus) scheme as described in [0147]), comprising:

a checking unit (Camera CPU 20 in Figure 2) adapted to check if a reception end message is received from a connected printer, after digital image data to be printed is transmitted while the cable is connected; and

a display unit (e.g., Liquid Crystal Display Panel 34 in Figure 2) adapted to display, if said checking unit receives the reception end message, information indicating that the cable can be disconnected (the CPU 20 transmits a disconnection request of the communication connection between the digital camera 10 and printer 12 to the printer 12 (S14) to disconnect the communication connection with the printer 12 (S15) as described in Figure 5 and [0070]).

Ozawa et al. does not disclose expressly wherein before completion of a print process by the printer that a disconnect of the cable can take place.

Fritz et al. discloses wherein before completion of a print process by the printer that a disconnect a session can take place (The entity 501(client) comprises a stopping device 520 arranged for stopping the print job, said stopping device 520 comprises a sending device 521 arranged for sending a message to the printer server, the message comprising a request to stop the printjob. The stopping device 520 will be used when all data to be printed in a printjob is sent to the printer as described in Column 6, lines 11-22), and arrange for closing the connection between the processing unit and the printer.

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

Since it is obvious to a person with ordinary skill in the art that by closing the connection means that there is no more communication between the processing unit and the printer, and if there is no connection the cable can be detached.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of notifying the client that a disconnect can occur when all of the image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the user to disconnect any cables or to move on to another task instead of waiting for the printer to finish printing. If the printer had a lot of data to print and the user had to wait until the printer is done printing, considerable time would be wasted by the user.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified in claim 4.

Regarding Claim 5: (Withdrawn)

Regarding Claim 6: (Withdrawn)

Regarding Claim 7: (Currently Amended)

Ozawa et al. discloses a method of controlling a digital camera (e.g., Digital Camera 10 in Figure 26) which can be directly connected to a printer (e.g., Printer 12 in figure 26) via a cable (e.g., serial communication cable 1201), and has a function of directly transmitting a sensed digital image data (serial communications between the digital camera 10 and printer 12 are done in accordance with the USB (Universal Serial Bus) scheme as described in [0147]), comprising:

a checking step (Camera CPU 20 in Figure 2) of checking if a reception end message is received from a connected printer, after digital image data to be printed is transmitted to the printer while the cable is connected; and

a display step of displaying (e.g., Liquid Crystal Display Panel 34 in Figure 2), when the reception end message is received in the checking step, information indicating that the cable can be disconnected (the CPU 20 transmits a disconnection request of the communication connection between the digital camera 10 and printer 12 to the printer 12 (S14) to disconnect the communication connection with the printer 12 (S15) as described in Figure 5 and [0070]).

Ozawa et al. does not disclose expressly wherein before completion of a print process by the printer that a disconnect of the cable can take place.

Fritz et al. discloses wherein before completion of a print process by the printer that a disconnect a session can take place (The entity 501(client) comprises a stopping device 520 arranged for stopping the print job, said stopping device 520 comprises a sending device 521 arranged for sending a message to the printer server, the message comprising a request to stop the printjob. The stopping device 520 will be used when all data to be printed in a printjob is sent to the printer as described in Column 6, lines 11-22), and arrange for closing the connection between the processing unit and the printer.

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

Since it is obvious to a person with ordinary skill in the art that by closing the connection means that there is no more communication between the processing unit and the printer, and if there is no connection the cable can be detached.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of notifying the client that a disconnect can occur when all of the image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the user to disconnect any cables or to move on to another task instead of waiting for the printer to finish printing. If the printer had a lot of data to print and the user had to wait until the printer is done printing, considerable time would be wasted by the user.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified in claim 7.

Regarding Claim 8: (Withdrawn)

Regarding Claim 9: (Withdrawn)

Regarding Claim 10: (Currently Amended)

Ozawa et al. discloses a digital (e.g., Digital Camera 10 in Figure 26) camera having which can be directly connected to a printer (e.g., Printer 12 in figure 26), and has a function of directly transmitting a sensed digital image to the printer (serial communications between the digital camera 10 and printer 12 are done in accordance with the USB (Universal Serial Bus) scheme as described in [0147]), comprising:

a display unit (e.g., Liquid Crystal Display Panel 34 in Figure 2) adapted to display, before completion of a print process of a digital image transmitted from said digital camera to

the printer, information indicating that said digital camera can be brought outside a communication area with the printer.

Ozawa et al. does not disclose expressly wherein before completion of a print process by the printer that a disconnect of the cable can take place.

Fritz et al. discloses wherein before completion of a print process by the printer that a disconnect a session can take place (The entity 501(client) comprises a stopping device 520 arranged for stopping the print job, said stopping device 520 comprises a sending device 521 arranged for sending a message to the printer server, the message comprising a request to stop the printjob. The stopping device 520 will be used when all data to be printed in a printjob is sent to the printer as described in Column 6, lines 11-22), and arrange for closing the connection between the processing unit and the printer.

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

Since it is obvious to a person with ordinary skill in the art that by closing the connection means that there is no more communication between the processing unit and the printer, and if there is no connection the cable can be detached.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of notifying the client that a disconnect can occur when all of the image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the user to disconnect any cables or to move on to another task instead of waiting for the printer to

finish printing. If the printer had a lot of data to print and the user had to wait until the printer is done printing, considerable time would be wasted by the user.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified in claim 10.

Regarding Claim 11: (Currently Amended)

Ozawa et al. discloses an image input apparatus (e.g., Digital Camera 10 in Figure 26) which can be directly connected to an image output device (e.g., Printer 12 in figure 26) via a cable, and has a function of directly transmitting a digital image to the image output device (serial communications between the digital camera 10 and printer 12 are done in accordance with the USB (Universal Serial Bus) scheme as described in [0147]), comprising:

a display unit (e.g., Liquid Crystal Display Panel 34 in Figure 2) adapted to display, information indicating that the cable can be disconnected from said image input apparatus or the image output device (the CPU 20 transmits a disconnection request of the communication connection between the digital camera 10 and printer 12 to the printer 12 (S14) to disconnect the communication connection with the printer 12 (S15) as described in Figure 5 and [0070]).

Ozawa et al. does not disclose expressly wherein before completion of a print process by the printer that a disconnect of the cable can take place.

Fritz et al. discloses wherein before completion of a print process by the printer that a disconnect a session can take place (The entity 501(client) comprises a stopping device 520 arranged for stopping the print job, said stopping device 520 comprises a sending device 521 arranged for sending a message to the printer server, the message comprising a request to stop the printjob. The stopping device 520 will be used when all data to be printed in a printjob is sent to the printer as described in Column 6, lines 11-22), and arrange for closing the connection between the processing unit and the printer.

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

Since it is obvious to a person with ordinary skill in the art that by closing the connection means that there is no more communication between the processing unit and the printer, and if there is no connection the cable can be detached.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of notifying the client that a disconnect can occur when all of the image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the user to disconnect any cables or to move on to another task instead of waiting for the printer to finish printing. If the printer had a lot of data to print and the user had to wait until the printer is done printing, considerable time would be wasted by the user.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified in claim 11.

Regarding Claim 12: (Currently Amended)

Ozawa et al. discloses an image input apparatus (e.g., Digital Camera 10 in Figure 26) which can be directly connected to an image output device (e.g., Printer 12 in figure 26), and has a function of directly transmitting a digital image to the image output device (serial communications between the digital camera 10 and printer 12 are done in accordance with the USB (Universal Serial Bus) scheme as described in [0147]), comprising:

a display unit (e.g., Liquid Crystal Display Panel 34 in Figure 2) adapted to display, information indicating that said image input apparatus is ready to photograph.

Ozawa et al. does not disclose expressly wherein before completion of a print process by the printer that a disconnect of the cable can take place.

Fritz et al. discloses wherein before completion of a print process by the printer that a disconnect a session can take place (The entity 501(client) comprises a stopping device 520 arranged for stopping the print job, said stopping device 520 comprises a sending device 521 arranged for sending a message to the printer server, the message comprising a request to stop the printjob. The stopping device 520 will be used when all data to be printed in a printjob is sent to the printer as described in Column 6, lines 11-22), and arrange for closing the connection between the processing unit and the printer.

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

Since it is obvious to a person with ordinary skill in the art that by closing the connection means that there is no more communication between the processing unit and the printer, and if there is no connection the cable can be detached.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of notifying the client that a disconnect can occur when all of the image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the user to disconnect any cables or to move on to another task instead of waiting for the printer to finish printing. If the printer had a lot of data to print and the user had to wait until the printer is done printing, considerable time would be wasted by the user.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified in claim 12.

Regarding Claim 13: (Currently Amended)

Ozawa et al. discloses an image input apparatus (e.g., Digital Camera 10 in Figure 26) which can be directly connected to an image output device (e.g., Printer 12 in figure 26), and has a function of directly transmitting a digital image to the image output device (serial communications between the digital camera 10 and printer 12 are done in accordance with the USB (Universal Serial Bus) scheme as described in [0147]), comprising:

a display unit (e.g., Liquid Crystal Display Panel 34 in Figure 2) adapted to display information indicating that said image input apparatus can be brought outside a communication area with the image output device.

Ozawa et al. does not disclose expressly wherein before completion of a print process by the printer that a disconnect of the cable can take place.

Fritz et al. discloses wherein before completion of a print process by the printer that a disconnect a session can take place (The entity 501(client) comprises a stopping device 520 arranged for stopping the print job, said stopping device 520 comprises a sending device 521 arranged for sending a message to the printer server, the message comprising a request to stop the printjob. The stopping device 520 will be used when all data to be printed in a printjob is sent to the printer as described in Column 6, lines 11-22), and arrange for closing the connection between the processing unit and the printer.

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

Since it is obvious to a person with ordinary skill in the art that by closing the connection means that there is no more communication between the processing unit and the printer, and if there is no connection the cable can be detached.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of notifying the client that a disconnect can occur when all of the image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the user to disconnect any cables or to move on to another task instead of waiting for the printer to finish printing. If the printer had a lot of data to print and the user had to wait until the printer is done printing, considerable time would be wasted by the user.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified in claim 13.

Regarding Claim 14. (New)

Ozawa et al. discloses a digital camera (e.g., Digital Camera 10 in Figure 26) which can be directly connected to a printer (e.g., Printer 12 in figure 26), and has a function of directly transmitting sensed image data (serial communications between the digital camera 10 and printer 12 are done in accordance with the USB (Universal Serial Bus) scheme as described in [0147]), comprising:

a display unit (e.g., Liquid Crystal Display Panel 34 in Figure 2) adapted to display, indicating that the communication between said digital camera and the printer can be disconnected (the CPU 20 transmits a disconnection request of the communication connection between the digital camera 10 and printer 12 to the printer 12 (S14) to disconnect the communication connection with the printer 12 (S15) as described in Figure 5 and [0070]).

Ozawa et al. does not disclose expressly wherein before completion of a print process by the printer that a disconnect can take place.

Fritz et al. discloses wherein before completion of a print process by the printer that a disconnect can take place (The entity 501(client) comprises a stopping device 520 arranged for stopping the print job, said stopping device 520 comprises a sending device 521 arranged for sending a message to the printer server, the message comprising a request to stop the printjob. The stopping device 520 will be used when all data to be printed in a printjob is sent to the printer as described in Column 6, lines 11-22).

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of notifying the client that a disconnect can occur when all of the image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the user to disconnect any cables or to move on to another task instead of waiting for the printer to finish printing. If the printer had a lot of data to print and the user had to wait until the printer is done printing, considerable time would be wasted by the user.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified in claim 14.

Regarding Claim 15: (New)

The digital camera according to claim 1, further comprising:

a reception unit (Camera CPU 20 in Figure 2) adapted to receive, from the printer, a reception end message issued when the printer has received all of a plurality of digital image data to be printed from said digital camera, wherein said display unit displays, when said reception unit has received the reception end message, the information (Upon completion of transmission of the image data, the flow advances to step S512, and the CPU 20 transmits a request for disconnecting communications between the digital camera 10 and printer 12 to the printer 12. Finally, in step S513, the CPU 20 executes disconnection processing of the infrared ray communications for disconnecting the communication connection with the printer 12 as described in Figure 20 and [0120]).

Note: The Examiner perceives that after the CPU of the Digital Camera requests to disconnect communication with the printer and before the Digital Camera disconnects with the printer that the printer responds/acknowledges the request to disconnect.

Regarding Claim 16: (New)

The digital camera according to claim 2, further comprising:

a reception unit (Camera CPU 20 in Figure 2) adapted to receive, from the printer, a reception end message issued when the printer has received all of a plurality of digital image data to be printed from said digital camera, wherein said display unit displays, when said reception unit has received the reception end message, the information (Upon completion of transmission of the image data, the flow advances to step S512, and the CPU 20 transmits a request for disconnecting communications between the digital camera 10 and printer 12 to the printer 12. Finally, in step S513, the CPU 20 executes disconnection processing of the infrared ray communications for disconnecting the communication connection with the printer 12 as described in Figure 20 and [0120]).

Note: The Examiner perceives that after the CPU of the Digital Camera requests to disconnect communication with the printer and before the Digital Camera disconnects with the printer that the printer responds/acknowledges the request to disconnect.

Regarding Claim 17: (New)

The digital camera according to claim 10, further comprising:

a reception unit (Camera CPU 20 in Figure 2) adapted to receive, from the printer, a reception end message issued when the printer has received all of a plurality of digital image data to be printed from said digital camera, wherein said display unit displays, when said reception unit has received the reception end message, the information (Upon completion of transmission of the image data, the flow advances to step S512, and the CPU 20 transmits a request for disconnecting communications between the digital camera 10 and printer 12 to the printer 12. Finally, in step S513, the CPU 20 executes disconnection processing of the infrared ray communications for disconnecting the communication connection with the printer 12 as described in Figure 20 and [0120]).

Note: The Examiner perceives that after the CPU of the Digital Camera requests to disconnect communication with the printer and before the Digital Camera disconnects with the printer that the printer responds/acknowledges the request to disconnect.

Regarding Claim 18: (New)

The image input apparatus according to claim 11, further comprising:

a reception unit (Camera CPU 20 in Figure 2) adapted to receive, from the image output device, a reception end message issued when the image output device has received all of a plurality of digital image data to be outputted from said image input apparatus, wherein said display unit displays, when said reception unit has received the reception end message, the information (Upon completion of transmission of the image data, the flow advances to step S512, and the CPU 20 transmits a request for disconnecting communications between the digital camera 10 and printer 12 to the printer 12. Finally, in step S513, the CPU 20 executes disconnection processing of the infrared ray communications for disconnecting the communication connection with the printer 12 as described in Figure 20 and [0120]).

Note: The Examiner perceives that after the CPU of the Digital Camera requests to disconnect communication with the printer and before the Digital Camera disconnects with the printer that the printer responds/acknowledges the request to disconnect.

Regarding Claim 19: (New)

The image input apparatus according to claim 12, further comprising:

a reception unit (Camera CPU 20 in Figure 2) adapted to receive, from the image output device, a reception end message issued when the image output device has received all

of a plurality of digital image data to be outputted from said image input apparatus, wherein said display unit displays, when said reception unit has received the reception end message, the information (Upon completion of transmission of the image data, the flow advances to step S512, and the CPU 20 transmits a request for disconnecting communications between the digital camera 10 and printer 12 to the printer 12. Finally, in step S513, the CPU 20 executes disconnection processing of the infrared ray communications for disconnecting the communication connection with the printer 12 as described in Figure 20 and [0120]).

Note: The Examiner perceives that after the CPU of the Digital Camera requests to disconnect communication with the printer and before the Digital Camera disconnects with the printer that the printer responds/acknowledges the request to disconnect.

Regarding Claim 20: (New)

The image input apparatus according to claim 13, further comprising:

a reception unit (Camera CPU 20 in Figure 2) adapted to receive, from the image output device, a reception end message issued when the image output device has received all of a plurality of digital image data to be outputted from said image input apparatus, wherein said display unit displays, when said reception unit has received the reception end message, the information (Upon completion of transmission of the image data, the flow advances to step S512, and the CPU 20 transmits a request for disconnecting communications between the digital camera 10 and printer 12 to the printer 12. Finally, in step S513, the CPU 20 executes disconnection processing of the infrared ray communications for disconnecting the communication connection with the printer 12 as described in Figure 20 and [0120]).

Note: The Examiner perceives that after the CPU of the Digital Camera requests to disconnect communication with the printer and before the Digital Camera disconnects with the printer that the printer responds/acknowledges the request to disconnect.

Regarding Claim 21: (New)

The digital camera according to claim 14, further comprising:

a reception unit (Camera CPU 20 in Figure 2) adapted to receive, from the printer, a reception end message issued when the printer has received all of a plurality of digital image data to be printed from said digital camera, wherein said display unit displays, when said reception unit has received the reception end message, the predetermined information (Upon completion of transmission of the image data, the flow advances to step S512, and the CPU 20 transmits a request for disconnecting communications between the digital camera 10 and printer 12 to the printer 12. Finally, in step S513, the CPU 20 executes disconnection processing of the infrared ray communications for disconnecting the communication connection with the printer 12 as described in Figure 20 and [0120]).

Note: The Examiner perceives that after the CPU of the Digital Camera requests to disconnect communication with the printer and before the Digital Camera disconnects with the printer that the printer responds/acknowledges the request to disconnect.

Regarding Claim 22: (New)

The digital camera according to claim 2, further comprising:

a selection unit adapted to select an image to be printed (the printer outputs a paper sheet on which the image (the selected image displayed on a liquid crystal display panel) sensed by the digital camera 10 is printed as described in [0167]);

a transmission unit (e.g., infrared transceiver 44 in Figure 2) adapted to transmit a print start instruction to the printer;

a reception unit (Camera CPU 20 in Figure 2) adapted to receive, from the printer, a reception end message issued when the printer has received image data to be printed; and

a control unit (Camera CPU 20 in Figure 2) adapted to control to inhibit photographing in response to the transmission of the print start instruction and to permit photographing in response to the reception of the reception end message.

Ozawa et al. does not disclose expressly wherein before control to inhibit photographing in response to the transmission of the print start instruction and to permit photographing in response to the reception of the reception end message.

Fritz et al. discloses wherein before control to inhibit photographing in response to the transmission of the print start instruction and to permit photographing in response to the reception of the reception end message (A printing process might be broken, e.g. because the printer runs out of paper or the ACL connection is broken, etc. This is reported by the printer server in a message received by the printer client. The entity 501 comprises a device 527 arranged for interpret the message and give a note to the user of the processing unit, e.g. by presenting the note on the screen of the PC as described in Column 5, lines 56-63).

Ozawa et al. & Fritz et al. are combinable because they are from the same field of endeavor of image processing; e.g., both send image data to a printer.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include Fritz et al.'s feature of inhibiting the cameras other features until image data has been received by e.g., the printer.

The suggestion/motivation for doing so would have been to allow the make sure that the data is properly received before trying to use the camera to take a picture.

Therefore, it would have been obvious to combine Fritz et al. with Ozawa et al. to obtain the invention as specified in claim 22.

Regarding Claim 23: (New)

Ozawa et al. discloses a method of controlling a digital camera which can be directly connected to a printer (e.g., Printer 12 in figure 26) and has a function of directly transmitting sensed digital image data (serial communications between the digital camera 10 and printer 12 are done in accordance with the USB (Universal Serial Bus) scheme as described in [0147]), comprising:

a selection step of selecting digital image data to be printed (the printer outputs a paper sheet on which the image (the selected image displayed on a liquid crystal display panel) sensed by the digital camera 10 is printed as described in [0167]);

a transmission step (e.g., infrared transceiver 44 in Figure 2) of transmitting the selected digital image data to the printer;

and a display step of displaying (e.g., Liquid Crystal Display Panel 34 in Figure 2), before completion of a print process, by the printer, of a digital image transmitted in said transmission step from the digital camera to the printer, predetermined information indicating that the communication between the digital camera and the printer can be

disconnected (the CPU 20 transmits a disconnection request of the communication connection between the digital camera 10 and printer 12 to the printer 12 (S14) to disconnect the communication connection with the printer 12 (S15) as described in Figure 5 and [0070]).

Note: The Examiner perceives that after the CPU of the Digital Camera requests to disconnect communication with the printer and before the Digital Camera disconnects with the printer that the printer responds/acknowledges the request to disconnect.

Regarding Claim 24: (New)

The method according to claim 23, further comprising:

a reception step of receiving, from the printer, a reception end message issued when the printer has received all of a plurality of image data to be printed, wherein, in said display step, the predetermined information is displayed in response to the reception of the reception end message (Upon completion of transmission of the image data, the flow advances to step S512, and the CPU 20 transmits a request for disconnecting communications between the digital camera 10 and printer 12 to the printer 12. Finally, in step S513, the CPU 20 executes disconnection processing of the infrared ray communications for disconnecting the communication connection with the printer 12 as described in Figure 20 and [0120]).

Note: The Examiner perceives that after the CPU of the Digital Camera requests to disconnect communication with the printer and before the Digital Camera disconnects with the printer that the printer responds/acknowledges the request to disconnect.

Regarding Claim 25: (New)

Ozawa et al. discloses a method of controlling a digital camera which can be directly connected to a printer (e.g., Printer 12 in figure 26) and has a function of directly transmitting sensed digital image data, comprising:

a selection step of selecting digital image data to be printed;

a transmission step of transmitting the selected digital image data to the printer;

and

a display step of displaying (e.g., Liquid Crystal Display Panel 34 in Figure 2), before completion of a print process, by the printer, of a digital image transmitted in said transmission step from the digital camera to the printer, predetermined information indicating that the digital camera is ready to photograph.

Regarding Claim 26: (New)

The method according to claim 25, further comprising:

a reception step of receiving, from the printer, a reception end message issued when the printer has received all of a plurality of digital image data to be printed from the digital camera, wherein in said display step, the predetermined information is displayed in response to the reception of the reception end message (Upon completion of transmission of the image data, the flow advances to step S512, and the CPU 20 transmits a request for disconnecting communications between the digital camera 10 and printer 12 to the printer 12. Finally, in step S513, the CPU 20 executes disconnection processing of the infrared ray communications for disconnecting the communication connection with the printer 12 as described in Figure 20 and [0120]).

Note: The Examiner perceives that after the CPU of the Digital Camera requests to disconnect communication with the printer and before the Digital Camera disconnects with the printer that the printer responds/acknowledges the request to disconnect.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Battles et al. (US 2003/0210331) discloses a digital camera comprising an optical system for forming an optical image, an image conversion system responsive to the optical image for storing image data, a user interface configured to direct a processing of the image data and a communications interface for receiving user definition data for configuring an operation of the user interface.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Application/Control Number:
10/630,808
Art Unit: 2625

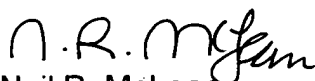
Page 29

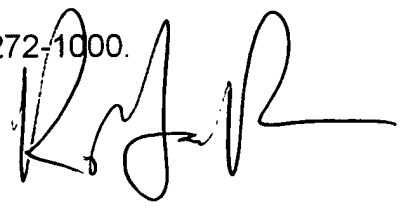
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. McLean whose telephone number is 571.270.1679. The examiner can normally be reached on Monday through Friday 7:30AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571.272.7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Neil R. McLean
02/12/2008


KING Y. POON
SUPERVISORY PATENT EXAMINER